

STIC Search Report

EIC 2800

STIC Database Tracking Number 131815

TO: Monica Lewis
Location: JEF-5A30
September 28, 2004
AU 2822
Case Serial No. : 10/652,037

From: Jeff Harrison
Location: STIC-EIC2800
JEF-4B68
Phone: 22511

Email: harrison, jeff

Search Notes

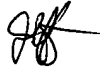
Dear Examiner Lewis:

Re: LED Transparent Film and Reflector have resin for matched CTE

Attached are edited results from patent and nonpatent literature.

I tagged some of the items most worth your review.

If you don't find useful art attached, or if you'd like additional searching or explanation, let me know.

Respectfully, 
Jeff Harrison
Team Leader, STIC-EIC2800
JEF-4B68, 571-272-2511



STIC Search Results Feedback Form

EIC 2800

Questions about the scope or the results of the search? Contact *the EIC searcher or contact:*

Jeff Harrison, EIC 2800 Team Leader
571-272-2511, JEF 4B68

Voluntary Results Feedback Form

➤ I am an examiner in Workgroup: Example: 2810

➤ Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to STIC/EIC2800, CP4-9C18



CAS/STN FILE 'WPIX, HCAPLUS' ENTERED AT 09:22:22 ON 28 SEP 2004

L1 4 S (US5989982 OR US6174751 OR 6235612)/PN
 L2 SEL PLU=ON L1 1- PN : 9 TERMS

FILE 'DPCI' ENTERED

L3 38 S L2/PN.D
 L4 SEL PLU=ON L3 1- PRN : 54 TERMS

FILE 'HCAPLUS, WPIX, JAPIO' ENTERED

L5 108 S L4
 L6 0 S L5 AND (EXACT OR SAME OR SIMILAR OR IDENTICAL OR ANALOGOUS### OR COMMON OR MUTUAL## OR ONE OR SINGLE OR SHAR####) (2A) (RESIN OR EPOXY OR PHENOLIC OR PLASTIC OR MONOMER OR SEALANT OR ENCAPSULANT OR ORGANIC OR HOMOPOLYMER)
 L7 0 S L5 AND (EXACT OR SAME OR SIMILAR OR IDENTICAL OR ANALOGOUS### OR COMMON OR MUTUAL## OR ONE OR SINGLE OR SHAR####) (2A) (STARTING OR MATERIAL OR CTE OR COEFFICIENT OR EXPAN##### OR PROPERTY OR CHARACTERISTIC OR THERMAL##)
 L8 15927 S TRANSPAREN##### AND (REFLECTOR OR REFLECT##### (2A) (FILM OR SEALANT### OR RESIN#### OR PERIPHER### OR PERIMETER OR OUTSIDE OR OUTER OR EXTERNAL## OR SURROUND## OR BORDER#### OR BOUNDARY OR WRAP#####))
 L9 323354 S (EXACT OR SAME OR SIMILAR OR IDENTICAL OR ANALOGOUS### OR COMMON OR MUTUAL## OR ONE OR SINGLE OR SHAR####) (2A) (STARTING OR MATERIAL OR CTE OR COEFFICIENT OR EXPAN##### OR PROPERTY OR CHARACTERISTIC OR THERMAL##)
 L10 0 S L5 AND (EXACT OR SAME OR SIMILAR OR IDENTICAL OR ANALOGOUS### OR COMMON OR MUTUAL## OR ONE OR SINGLE OR SHAR####) (2A) (RESIN OR EPOXY OR PHENOLIC OR PLASTIC OR MONOMER OR SEALANT OR ENCAPSULANT OR ORGANIC OR HOMOPOLYMER)
 L11 114041 S (EXACT OR SAME OR SIMILAR OR IDENTICAL OR ANALOGOUS### OR COMMON OR MUTUAL## OR ONE OR SINGLE OR SHAR####) (2A) (RESIN OR EPOXY OR PHENOLIC OR PLASTIC OR MONOMER OR SEALANT OR ENCAPSULANT OR ORGANIC OR HOMOPOLYMER)
 L12 386 S L8 AND (L9 OR L10 OR L11)
 L13 195 S ELECTROLUMINESCENT DEVICE/TI AND STRUCTURE/TI
 L14 1630 S (LED ARRAY OR LED OR OLED OR PLED OR LIGHT EMITTING DEVICE)/TI AND STRUCTURE/TI
 L15 969 S (L13 OR L14) AND DEVICE
 L16 945 S (LIGHT EMITTING DIODE)/TI AND STRUCTURE/TI
 L17 399 S L16 AND DEVICE
 L18 0 S (L12 OR L13 OR L14 OR L15 OR L16 OR L17) AND RESIN AND CTE
 L19 288 S (L12 OR L13 OR L14 OR L15 OR L16 OR L17) AND RESIN
 L20 15 S L19 AND (EXPAN#### OR THERMAL)
 L21 0 S L19 AND COMPATIB#####
 L22 3 S L19 AND ONE RESIN
 L23 1 S L19 AND ONE EPOXY
 L24 0 S L19 AND ONE PHENOLIC
 L25 18 S (L20 OR L21 OR L22 OR L23 OR L24)
 L26 SEL PLU=ON L25 1- MC IC : 153 TERMS
 L27 1211616 S L26
 L28 229 S L19 AND L27
 L29 1124 S (L12 OR L13) OR (L17 OR L18 OR L19 OR L20 OR L21 OR L22 OR L23 OR L24 OR L25)
 L30 0 S L5 AND L29
 L31 18 S L25 NOT L1
 L32 2 S US2004041165/PN
 L33 SEL PLU=ON L32 1- PRN : 2 TERMS
 L34 4 S L33
 L35 4 S L32 OR L34
 L36 18 S L31 NOT L35
 L37 SEL PLU=ON L36 1- PRN : 25 TERMS
 L38 41 S L37
 L39 23 S L38 NOT L36
 L40 13 S L39 AND (RESIN##### OR EPOXY OR PHENOLIC)
 L41 1 S L39 AND ARRAY
 L42 23 S (L39 OR L40 OR L41)

L43 SEL PLU=ON L42 1- IC RN : 115 TERMS
 L44 2184521 S L43
 L45 23 S L42 AND L44

FILE 'REGISTRY' ENTERED

L46 137657 S RESIN OR EPOXY OR PHENOLIC
 L47 44528 S "EPOXY RESIN"/PCT
 L48 15554 S "PHENOLIC RESIN"/PCT

FILE 'HCAPLUS' ENTERED

L49 124729 S "EPOXY RESINS"/CT
 L50 52527 S "PHENOLIC RESINS"/CT
 L51 10323 S "PHENOL CONDENSATION PRODUCTS"/CT
 L52 266199 S "ELECTROLUMINESCENT DEVICES"/CT OR LED OR
 L53 13767 S L52 AND L53
 L54 1226 S (TRANSPAREN##### OR TRANSMI##### OR
 L55 185 S (TRANSLUCEN#####) (2A) SUBSTRATE
 L56 34 S L54 AND (GROOV##### OR TRENCH##### OR CHANNEL##### OR INDENT##### OR
 L57 5 S RECESS##### OR AROUND OR SURROUND##### OR SEALANT OR ENCAPSULA##### OR SEAL OR SEALER OR
 L58 30 S PERIMETER OR PERIPHERY OR PERIPHERALLY OR OUTER OR OUTSIDE)
 L59 11655 S ((L46 OR L47 OR L48 OR L49 OR L50 OR L51) OR RESIN####) AND L55
 L60 30 S REFLECT? AND L56
 L61 81960 S REFLECT? AND L57
 L62 52 S (L52 OR L53) AND REFLECT#####
 L63 1 S (L55 OR L56 OR L57 OR L58) AND L59
 L64 0 S ("THERMAL PROPERTIES"/CT OR "THERMAL EXPANSION"/CT) OR THERMAL## (2A)
 L65 0 S (STRESS#### OR STRAIN####) OR CTE OR EXPANSION COEFFICIENT OR THERMAL EXPANSION OR "C T E"
 L66 92 S (L54 OR L55 OR L56 OR L57 OR L58 OR L59 OR L60) AND L61
 L67 1819 S (L54 OR L55 OR L56 OR L57 OR L58 OR L59 OR L60) AND (THINN##### OR
 L68 265 S PEEL##### OR DELAMINA#####)
 L69 115 S "SAME" (2A) RESIN
 L70 145 S COMMON (2A) RESIN
 L71 2704 S SHAR##### (2A) RESIN
 L72 2 S IDENTICAL (2A) RESIN
 L73 9 S COMPATIB##### (2A) RESIN
 L74 83 S (L54 OR L55 OR L56 OR L57 OR L58 OR L59 OR L60) AND (L67 OR L68 OR L69 OR
 L75 20 S L70 OR L71)
 L76 272 S ((L56 OR L57 OR L58) OR L60 OR (L62 OR L63 OR L64 OR L65 OR L66 OR L67 OR
 L77 24 S L68 OR L69 OR L70 OR L71 OR L72)) AND REFLECT##### (3A) (PHENOLIC OR EPOX##### OR RESIN#####)
 L78 94 S ((L56 OR L57 OR L58) OR L60 OR (L62 OR L63 OR L64 OR L65 OR L66 OR L67 OR
 L79 107 S L68 OR L69 OR L70 OR L71 OR L72)) AND TRANSPAREN##### (3A) (PHENOLIC OR EPOX##### OR RESIN#####)
 L80 28 S (L54 OR L55 OR L56 OR L57 OR L58 OR L59 OR L60) AND L74
 L81 58 S (L56 OR L57 OR L58) OR L60 OR (L62 OR L63 OR L64 OR L65 OR L66) OR (L72 OR
 L82 58 S L73 OR L74 OR L75)
 L83 36 S L76 AND REFLECT##### (8A) TRANSPAREN#####
 L84 28 S L76 AND (RESIN##### (8A) REFLECT##### OR TRANSPAREN##### (8A) RESIN#####)
 L85 25 S L76 AND (RESIN##### (5A) SUBSTRATE OR TRANSPAREN##### (5A) SUBSTRATE)
 L86 44 S L78 AND L79
 L87 28 S L57 OR L63 OR (L72 OR L73) OR L75 OR L77 OR L80
 L88 1 S L81 NOT (L1 OR L35)
 L89 12 S L82 AND (ONE OR SHAR##### OR "SAME" OR COMMON OR MUTUAL## OR MATERIAL)
 L90 12 S L82 AND (TRANSMI##### OR TRANSLUC##### OR TRANSPAREN##### OR
 L91 12 S WINDOW#####) (6A) RESIN#####
 L92 12 S L82 AND (TRANSMI##### OR TRANSLUC##### OR TRANSPAREN##### OR
 L93 12 S WINDOW#####) (6A) REFLECT#####
 L94 12 S L82 AND (TRANSMI##### OR TRANSLUC##### OR TRANSPAREN##### OR
 L95 12 S WINDOW#####) (6A) SUBSTRATE
 L96 12 S L82 AND (TRANSMI##### OR TRANSLUC##### OR TRANSPAREN##### OR
 L97 12 S WINDOW#####) (6A) LAYER
 L98 12 S L82 AND (TRANSMI##### OR TRANSLUC##### OR TRANSPAREN##### OR
 L99 12 S WINDOW#####) (6A) SUBLAYER
 L100 12 S L82 AND (TRANSMI##### OR TRANSLUC##### OR TRANSPAREN##### OR
 L101 12 S WINDOW#####) (6A) FILM

FILE 'HCAPIUS' ENTERED

L90 3 S L82 AND (TRANSMI##### OR TRANSLUC##### OR TRANSPAREN##### OR
 WINDOW#####) (6A) SEALANT
 L91 0 S L82 AND (TRANSMI##### OR TRANSLUC##### OR TRANSPAREN##### OR
 WINDOW#####) (6A) ENCAPSULANT
 L92 3 S L82 AND (ARRAY##### OR ROW### OR COLUMN##### OR MATRIX OR MATRICES)
 L93 0 S L82 AND (MULTI OR MULTIPLE)
 L94 21 S (L84 OR L85 OR L86 OR L87 OR L88 OR L89 OR L90 OR L91 OR L92 OR L93) NOT L83
 L95 357 S (L54 OR L55 OR L56 OR L57 OR L58 OR L59 OR
 L60 OR L61 OR L62 OR L63 OR L64 OR L65 OR L66 OR L67 OR L68 OR
 L69 OR L70 OR L71 OR L72 OR L73 OR L74 OR L75 OR L76 OR L77 OR
 L78 OR L79 OR L80 OR L81 OR L82 OR L83 OR L84 OR L85 OR L86 OR
 L87 OR L88 OR L89 OR L90 OR L91 OR L92 OR L93 OR L94) AND RESIN##### (4A) SUBSTRATE
 L96 136 S (L54 OR L55 OR L56 OR L57 OR L58 OR L59 OR
 L60 OR L61 OR L62 OR L63 OR L64 OR L65 OR L66 OR L67 OR L68 OR
 L69 OR L70 OR L71 OR L72 OR L73 OR L74 OR L75 OR L76 OR L77 OR
 L78 OR L79 OR L80 OR L81 OR L82 OR L83 OR L84 OR L85 OR L86 OR
 L87 OR L88 OR L89 OR L90 OR L91 OR L92 OR L93 OR L94) AND RESIN##### (4A) REFLECT#####
 L97 305 S (L54 OR L55 OR L56 OR L57 OR L58 OR L59 OR
 L60 OR L61 OR L62 OR L63 OR L64 OR L65 OR L66 OR L67 OR L68 OR
 L69 OR L70 OR L71 OR L72 OR L73 OR L74 OR L75 OR L76 OR L77 OR
 L78 OR L79 OR L80 OR L81 OR L82 OR L83 OR L84 OR L85 OR L86 OR L87 OR L88 OR L89 OR
 L90 OR L91 OR L92 OR L93 OR L94) AND RESIN##### (4A) TRANSPAREN#####
 L98 8 S L95 AND L96 AND L97
 L99 2 S (L46 OR L47 OR L48) AND L98
 L100 8 S (L98 OR L99)
 L101 1 S L82 NOT (L83 OR L100 OR L94)
 L102 12451 S THERMAL STRESS
 L103 53831 S THERMAL EXPANSION
 L104 30288 S EXPANSION COEFFICIENT OR CTE
 L105 2 S (L102 OR L103 OR L104) AND RESIN AND REFLECT##### AND TRANSPAREN#####
 AND (LED OR EL OR PLED OR OLED OR LIGHT EMITTING OR ELECTROLUMINESCENT)

FILE 'WPIX, JAPIO, INSPEC, JICST-EPLUS' ENTERED

L106 5 S (L102 OR L103 OR L104) AND RESIN AND
 REFLECT##### AND TRANSPAREN##### AND (LED OR EL OR PLED OR OLED OR LIGHT
 EMITTING OR ELECTROLUMINESCENT)

FILE 'REGISTRY' ENTERED AT 13:30:41 ON 28 SEP 2004

L1 180178 SEA ABB=ON PLU=ON EPOXY OR PHENOLIC OR RESIN OR EPOX#####/P
CT

FILE 'HCAPLUS' ENTERED AT 13:31:22 ON 28 SEP 2004

L2 2764 SEA ABB=ON PLU=ON L1(L)REFLECT#####

L4 95 SEA ABB=ON PLU=ON L2 AND L1(L)TRANSPAREN#####

L5 784 SEA ABB=ON PLU=ON L2 AND L1(L) (FILM OR LAYER OR MATERIAL)

L6 63 SEA ABB=ON PLU=ON L4 AND L5

L7 0 SEA ABB=ON PLU=ON L6 AND (CTE OR EXPANSION)

L8 8 SEA ABB=ON PLU=ON L6 AND THERMAL##

132655

SEARCH REQUEST FORM Scientific and Technical Information Center - EIC2800

Rev. 3/15/2004 This is an experimental format -- Please give suggestions or comments to Jeff Harrison, JEF-4B68, 272-2511.

Date 9/15/04 Serial # 10/652,037 Priority Application Date _____
 Your Name M. Lewis Examiner # _____
 AU 2822 Phone 202-1838 Room 5A30
 In what format would you like your results? Paper is the default. PAPER DISK EMAIL

If submitting more than one search, please prioritize in order of need.

Need before
9/27

The EIC searcher normally will contact you before beginning a prior art search. If you would like to sit with a searcher for an interactive search, please notify one of the searchers.

Where have you searched so far on this case?

09-16-04 10:59 AM

Circle: USPT DWPI EPO Abs JPO Abs IBM TDB

Other: _____

What relevant art have you found so far? Please attach pertinent citations or Information Disclosure Statements. _____

What types of references would you like? Please checkmark:

Primary Refs ☒ Nonpatent Literature _____ Other _____
 Secondary Refs ☒ Foreign Patents _____
 Teaching Refs _____

What is the topic, such as the **novelty**, motivation, utility, or other specific facets defining the desired **focus** of this search? Please include the concepts, synonyms, keywords, acronyms, registry numbers, definitions, structures, strategies, and anything else that helps to describe the topic. Please attach a copy of the abstract and pertinent claims.

Claim 5 → LED
 = substrate of resin
 = LED on substrate
Problem: See pages 1 & 2 = Transparent Layer
Solution: " " " 2 & 3 = Resin
 = Sealing LED
 = Reflector film
 = Resin same as
 in the prior art figure however transp.
 the transparent and reflector layer
 film are not made out of the - Around trans
 same resin. layer

Staff Use Only

Searcher: HARRISON
 Searcher Phone: 22511
 Searcher Location: STIC-EIC2800, JEF-4B68
 Date Searcher Picked Up: 9-27
 Date Completed: 9-28-04
 Searcher Prep/Rev Time: 65
 Online Time: 67

Type of Search

Structure (#) _____
 Bibliographic ☒
 Litigation _____
 Fulltext _____
 Patent Family _____
 Other _____

Vendors

STN ☒
 Dialog _____
 Questel/Orbit _____
 Lexis-Nexis _____
 WWW/Internet _____
 Other _____

L83 ANSWER 10 OF 36 HCAPLUS COPYRIGHT ACS on STN

AN 2002:946783 HCAPLUS Full-text

DN 138:30869

ED Entered STN: 13 Dec 2002

TI **Light-emitting devices sealed with transparent layers containing a fluorescent material and a reflector layer, and methods for manufacturing the devices**

IN Murano, Yoshio

PA Citizen Electronics Co., Ltd., Japan

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002185966	A1	20021212	US 2002-164557	20020610
	US 6707247	B2	20040316		
	JP 2002368286	A2	20021220	JP 2001-176355	20010611
	CN 1393942	A	20030129	CN 2002-124329	20020611
	US 2004069993	A1	20040415	US 2003-677229	20031003
PRAI	JP 2001-176355	A	20010611		
	US 2002-164557	A3	20020610		

AB **Light-emitting devices** are described which comprise a substrate; a light-emitting diode (LED) mounted on the **substrate**; a **first transparent layer sealing the LED**; a **second transparent layer provided around the first transparent layer**; a fluorescent material being included in either of the first transparent layer and the second transparent layer; and a **reflector layer** formed on the **outside walls** except on the upper side. Methods for manufacturing **light-emitting devices** are also discussed which entail preparing a substrate aggregation having a plurality of substrate divisions; mounting an **LED** on the **substrate** division; forming a first **transparent layer** on the **substrate** aggregation; cutting off the first **transparent layer** at division lines **surrounding** the substrate division to form an individual first transparent layer; forming a second transparent layer on the individual first transparent layer; cutting off the second transparent layer at division lines **surrounding** the substrate division to form an individual second transparent layer; forming a **reflector film on outside walls of the individual second transparent layer**; and dividing the **substrate** division at division lines of the division.

IT **Epoxy resins, uses**

(transparent layer; light-emitting

devices sealed with transparent layers containing fluorescent material)

L100 ANSWER 3 OF 8 HCAPLUS COPYRIGHT ACS on STN

AN 2002:978308 HCAPLUS Full-text

DN 138:47087

ED Entered STN: 29 Dec 2002

TI **Electro-optical device, electronic apparatus, and method for manufacturing electro-optical device**

IN Nimura, Toru

PA Seiko Epson Corporation, Japan

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002196517	A1	20021226	US 2002-158800	20020603
	JP 2003057640	A2	20030226	JP 2002-142134	20020516
	CN 1389752	A	20030108	CN 2002-122252	20020604
PRAI	JP 2001-170173	A	20010605		
	JP 2002-142134	A	20020516		

AB An electro-optical device is described comprising an electro-optical material; and a **transparent substrate** that holds the electro-optical material, the **transparent substrate** including a **photosensitive resin layer** which defines projections and recesses formed in a predetd. disposition pattern, the **transparent substrate** also including a light- **reflecting** film which is formed at an upper side of the photosensitive resin layer and in a region planarly overlapping the photosensitive **resin** layer, the light-**reflecting** film being provided at a surface thereof with projections and recesses corresponding to the disposition pattern of the photosensitive **resin** layer, the **transparent substrate** also including a light-shielding film at a lower side of the photosensitive resin layer and in a region planarly overlapping at least a region of the photosensitive resin layer in which the projections and recesses are formed. An electronic apparatus comprising the electro-optical device is also described. A method of fabricating the electro-optical device is also described entailing forming a light-shielding film in a predetd. region at a lower side of the photosensitive resin layer before forming the photosensitive **resin** layer on the **transparent substrate**; and forming the photosensitive **resin** layer on the **transparent substrate** by applying a photosensitive **resin** to the **transparent substrate** at a front face thereof, then, exposing the photosensitive **resin** from the front face of the **transparent substrate** while holding the **transparent substrate** with a substrate holder at a rear face of the **transparent substrate**, wherein the substrate holder including a vacuum chuck is provided with suction holes to adsorb the **transparent substrate** at the rear face.

IT Polyimides, uses

(orientation film; electrooptical device, electronic apparatus using **transparent substrate** and method of fabrication)

L83 ANSWER 14 OF 36 HCAPLUS COPYRIGHT ACS on STN

AN 2002:522393 HCAPLUS Full-text

DN 137:70612

ED Entered STN: 12 Jul 2002

TI Organic EL display

IN Yazawa, Naoki

PA Tohoku Pioneer Corporation, Japan

SO U.S. Pat. Appl. Publ., 4 pp.

CODEN: USXXCO

DT Patent

LA English

IC ICM H05B033-00

ICS H01J001-62

NCL 313504000

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	US 2002089281	A1	20020711	US 2002-35165	20020104
	JP 2002208474	A2	20020726	JP 2001-3410	20010111
PRAI	JP 2001-3410	A	20010111		

AB An organic EL display includes a **transparent electrode**, an **organic EL layer**, and a back electrode, sequentially stacked on a **transparent substrate**. A **half mirror** is disposed on the **outer surface of the transparent substrate**. A thin metal film is formed as the half mirror by vapor-depositing or sputtering **one** of metals, such as Al, Ag, Sn and Cr and a compound such as TiO₂ or several of the metals and compound on the **outer surface of the transparent substrate**. A **transparent resin** film on which a thin metal film is formed, or the like is used.

L83 ANSWER 16 OF 36 HCAPLUS COPYRIGHT ACS on STN

AN 2002:253772 HCAPLUS Full-text

ED Entered STN: 05 Apr 2002

TI Indicatory body and electronic equipment. [Machine Translation].

IN Shimoda, Tatsuya; Miyashita, Satoru; Inoue, Satoshi

PA Seiko Epson Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G09F009-40

ICS G02F001-1347; G09F009-00; G09F009-30; G09F009-46; H05B033-06;

H05B033-12; H05B033-14

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002099227	A2	20020405	JP 2001-201868	20010703
	US 2002149037	A1	20021017	US 2001-900521	20010706
PRAI	JP 2000-207392	A	20000707		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2002099227	ICM	G09F009-40
	ICS	G02F001-1347; G09F009-00; G09F009-30; G09F009-46; H05B033-06; H05B033-12; H05B033-14
US 2002149037	ECLA	G09G003/32A

AB [Machine Translation of Descriptors]. Being fine, furthermore we would like to actualize the large-sized indicatory body easily. In order to continue plural indication blocks 20 in vertical direction, being able to connect, it forms indicatory body 10. Each indication block 20 is provided, constitutes arranging the many pixel which radiates making use of the organic EL element extensively in the matrix state, the plane surface rectangular display part 21 which becomes and display part 21 among the sides continuing shortly on the one hand, the signal from outside for each pixel and terminal 22 in order to relay power source, the empty. Each indication block 20 is stuck, the long side of display part 21 contacting, in order for those to continue in vertical direction, the synthetic resin make or on transparent substrate 100 of the glass make, through transparent adhesive 101. However, the display surface (surface side where radiation in organic EL element is irradiated) of display part 21 directing to transparent substrate 100 side, as because of this, in figure 1 (b) shown, light from of display part 21, from the surface of transparent substrate 100 tries to be irradiated outside.

L100 ANSWER 5 OF 8 HCAPLUS COPYRIGHT ACS on STN

AN 2002:123490 HCAPLUS Full-text

ED Entered STN: 15 Feb 2002

TI Color filter of liquid crystal display and method of fabricating the same

IN Kim, Woo Hyun; Kim, Woong Kwon

PA S. Korea

SO U.S. Pat. Appl. Publ., 11 pp.

CODEN: USXXCO

DT Patent

LA English

IC ICM G02F001-1335

NCL 349106000

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	US 2002018159	A1	20020214	US 2001-891506	20010627
	US 6542209	B2	20030401		
PRAI	KR 2000-37708	A	20000703		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
-----	-----	-----
US 20020018159	ICM	G02F001-1335
	NCL	349106000
US 2002018159	ECLA	G02F001/1335F2; G02F001/1335R2

AB A color filter of a liquid crystal display and method of fabricating the same is disclosed in the present invention. More specifically, a color filter of a liquid crystal display includes a glass **substrate**, a color **resin** layer on the glass **substrate**, and a **transparent** electrode over the color **resin** layer, wherein the **color resin layer has transmission and reflection sections**, and the **reflection** section has first and second portions, wherein the first portion is patterned and the second portion is not patterned, thereby controlling a quantity of light passing through the **reflection** section.

L94 ANSWER 13 OF 21 HCAPLUS COPYRIGHT ACS on STN

AN 2001:100833 HCAPLUS Full-text

DN 134:170606

ED Entered STN: 09 Feb 2001

TI Organic **electroluminescent devices** and manufacture

IN Otsuki, Shigeyoshi; Fukuzawa, Shinichi

PA NEC Corp., Japan

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2001035659	A2	20010209	JP 1999-202314	19990715
	US 6737176	B1	20040518	US 2000-614874	20000712
PRAI	JP 1999-202314	A	19990715		

AB The devices comprise: (1) a pair of a cathode and an ITO anode interposing an **organic electroluminescent laminate on a transparent substrate**; (2) a **cap** (glass or transparent resin) encapsulating (1); and (3) a desiccant dispersed in a photo-polymerized resin placed inside (2), where (3) comprises P4O10, BaO, MgO, CaO or Al2O3.

IT **Resins**

(organic electroluminescent devices and manufacture)

L94 ANSWER 15 OF 21 HCAPLUS COPYRIGHT ACS on STN

AN 2000:782777 HCAPLUS Full-text

DN 133:322881

ED Entered STN: 08 Nov 2000

TI Supported organic film as phase difference element and optical device made of the element and polarizer film

IN Nishiyama, Katsuhiko; Umemura, Harumitsu; Tanabe, Yuzuru

PA Asahi Glass Co., Ltd., Japan

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000310718	A2	20001107	JP 1999-240296	19990826
	US 6580674	B1	20030617	US 2001-807961	20010522
PRAI	JP 1999-51018	A	19990226		
	JP 1999-240296	A	19990826		
	JP 1999-279312	A	19990930		
	JP 1999-305616	A	19991027		
	WO 2000-JP5651	W	20000823		

AB The phase difference film is made of an organic thin film with glass-transition temperature $\geq 150^\circ$ having phase difference function and ≥ 1 surface of the organic film is coated with an adhesive and laminated on the adhesive layer with a **fixed transparent or light reflection substrate wherein linear expansion coefficient (E) of the organic film E1, that of the adhesive E2, and that of the substrate E3 ($^\circ\text{C}$) satisfy $E1 < E2$ and $E3 < E2$** . Alternatively, the phase difference film consists of (a) a thin film having the function made of polycarbonate, polyimide, polyarylate, polyether-polysulfone, (alicyclic) polyolefin, poly(meth)acrylate, and/or polyether-polyimide, an adhesive layer made of acrylic resin-, epoxy resin-, polyurethane-, and/or polyester-type adhesive on ≥ 1 side of the thin film, and a **transparent or light reflection substrate** or an optical device fixed on the adhesive layer or consists of (b) a polycarbonate thin film having the function associated with the adhesive layer and **transparent substrate** on 1 side or on the both sides of the thin film. The optical device, suitable for optical head for reading or writing of optical disk, etc., involves the phase difference film and a polarizing diffraction film, having different diffraction efficiencies corresponding to polarizing directions of incident lights. Thus, the phase difference film comprising a polycarbonate film ($E 6.2 + 10^{-6}/^\circ\text{C}$), a polyester adhesive ($E 1.2 + 10^{-4}/^\circ\text{C}$), and a glass substrate ($E 95 + 10^{-7}/^\circ\text{C}$) and a polarizing diffraction film were installed on an optical head for applying semiconductor laser on an optical disk and stable phase difference was obtained without being affected by change of environmental temperature

IT Acrylic polymers, uses

Epoxy resins, uses

(adhesives; phase difference organic thin film associated with adhesive layer and substrate with regulated linear **expansion coeff.** for optical device)

IT **Transparent films**

(in phase difference organic thin film associated with adhesive layer and substrate with regulated linear **expansion coefficient** for optical device)

IT **Adhesives**

(phase difference organic thin film associated with adhesive layer and substrate with regulated linear **expansion coefficient** for optical device)
 (polyether-; phase difference organic thin film associated with adhesive layer and substrate with regulated linear **expansion**

L94 ANSWER 16 OF 21 HCAPLUS COPYRIGHT ACS on STN

AN 2000:534627 HCAPLUS Full-text

DN 133:142441

ED Entered STN: 04 Aug 2000

TI **Optical couplers and manufacture**

IN Sada, Naoki

PA Sharp Corp., Japan

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2000216426	A2	20000804	JP 1999-16384	19990126
PRAI	JP 1999-16384		19990126		

AB The manufacturing process comprises the steps of:

- Bonding (1) a 1st and (2) a 2nd lead frame (Cu) and (3) a 1st and (4) a 2nd transparent epoxy resin substrate, resp.;
- Bonding (5) a LED chip and (6) a phototransistor onto (3) and (4), resp. using a Ag paste; wire-bonding between (1) and (3) and between (2) and (6);
- Encapsulating a (3)/(5)-(4)/(6) coupling using the transparent epoxy resin;
- And encapsulating the assembly using a light-shielding resin.

IT Electroluminescent devices

Encapsulation

IT Epoxy resins, uses

(Optical couplers and manufacture)

L83 ANSWER 21 OF 36 HCAPLUS COPYRIGHT ACS on STN

AN 1999:563089 HCAPLUS Full-text

DN 131:323507

ED Entered STN: 06 Sep 1999

TI Multilayer NIR **reflective** coatings on **transparent**
plastic **substrates** from photopolymerizable nanoparticulate sols

AU Mennig, M.; Oliveira, P. W.; Frantzen, A.; Schmidt, H.

CS Institut fur Neue Materialien, Saarbrucken, 66123, Germany

SO **Thin Solid Films (1999), 351(1,2), 225-229**

CODEN: THSFAP; ISSN: 0040-6090

PB Elsevier Science S.A.

DT Journal

LA English

CC 38-3 (Plastics Fabrication and Uses)

AB A new synthesis and processing route for preparing multilayer interference coatings on plastic substrates has been developed. For this purpose, alc. sols of surface modified (3-glycidoxypopyltrimethoxysilane, GPTS) SiO₂ and TiO₂ particles with sizes of 10 and 4 nm, resp., were synthesized. Layers were prepared by dip coating, subsequent UV curing (2.1 J/cm²) and thermal post treatment at 80°C for 15 min. Refractive indexes of n_D=1.47 for SiO₂ layers and n_D=1.93 for TiO₂ were measured. As an example, plastic sheets were coated by angle dependent dip coating with withdrawal speeds from 3 up to 6 mm/s and an inclination angle of 4°. By this way, **one** side of the substrate was coated with six quarterwave thick layers (peak wavelength at 750 nm), producing a **reflective** interference filter with a **reflectivity** of 72% between 650 and 900 nm. On the other side of the substrate, an interference filter with a **reflectivity** of 66% between 800 and 1100 nm was produced simultaneously. The interference coatings do not show **delamination** or defects after boiling water test (H₂O+5 weight % NaCl, 8 h) and excellent adhesion (GT 0, TT 1) was obtained in the cross cut tape test. Yellowing did not occur ($\Delta g < 3$) and the mech. properties of the interference filters were not altered after dry sun test at 760 W/m² for 270 h. For mech. protection a nanocomposite hardcoat can be applied on top of the NIR **reflectance** filters without changing the optical properties remarkably.

L45 ANSWER 15 OF 23 JAPIO (C) JPO on STN

AN 2000-103655 JAPIO Full-text

TI **LAMINATED GLASS FOR REFLECTION TYPE DISPLAY**

IN HOSAKI KENJI; KUMAGAI YOSHIHIRO; ASAKURA MOTOO; NISHIKAWA SHINJI;
KOBAYASHI KAZUYA

PA NIPPON MITSUBISHI OIL CORP
CENTRAL GLASS CO LTD

PI **JP 2000103655 A 20000411 Heisei**

AI JP 1998-278572 (JP10278572 Heisei) 19980930

PRAI **JP 1998-278572**19980930

SO PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 2000

IC ICM C03C027-12

ICS B60K035-00; G02B005-30; G02B027-02;
G02F001-1333; G02F001-13363; G09F009-00

ICA B60J001-02

AB PROBLEM TO BE SOLVED: To retain the adhesion between the film and the glass with sufficient **resistance to penetration and shock and increase the transparency and weather resistance** by **bonding an optical polarizer film to a glass plate with a hot-melt type adhesive**. SOLUTION: As an optical polarizer film, can be used a liquid crystal polymer that is oriented in the twisted nematic mode and becomes in the glass state lower than the liquid crystal transition point, or a liquid crystal substance that is nematically oriented in the liquid crystal and is fixed its orientation by photo-crosslinking or thermal crosslinking after orientation. As a hot-melt type adhesive, are preferably used a colorless and clear polyvinyl acetal **resin**, an ethylene-vinyl acetate **resin**, polyvinyl butyral **resin** or the like. In a preferred embodiment, an ultraviolet absorber, for example, benzotriazole and/or a photostabilizer, for example, hindered amine are added to the adhesive for increasing the resistance to weather. COPYRIGHT: (C)2000,JPO

L83 ANSWER 19 OF 36 HCAPLUS COPYRIGHT ACS on STN

AN 2000:206155 HCAPLUS Full-text

ED Entered STN: 31 Mar 2000

TI The optical fiber sensor the information detection method which uses that.
[Machine Translation].

IN Uchino, Naotaka

PA Furukawa Electric Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G02B006-02

ICS G01N021-41; G01N021-45; G02B006-00

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000089042	A2	20000331	JP 1998-261879	19980916
PRAI	JP 1998-261879		19980916		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2000089042	ICM	G02B006-02
	ICS	G01N021-41; G01N021-45; G02B006-00

AB [Machine Translation of Descriptors]. Leakage of liquid such as fuel oil C cannot be detected. The light which is made to propagate to 1 place or several places in the longitudinal direction middle of the optical fiber 1 where the resin was covered, inside the core and from the core starting leaking inside the cladding layer, starting leaking to the covering resin inside layer the leakage reflected light which is reflected in surface of the **same** cladding layer and covering resin layer 4 of the surrounding and / or through the cladding layer from the core, the **same** covering resin layer the leakage **reflected** light where is reflected in surface of 4 and the outside world, providing the kind of bend 2 which, becomes interference possible accompanies the change of index of refraction of the medium outside resin overlayer 4 making use of the optical fiber sensor which becomes, the aforementioned interference which Change of condition and / or change of the aforementioned interference condition for accompanying the change of index of refraction of the **same resin** overlayer 4 which absorbed the medium outside resin overlayer 4, the propagation change of physical state outside the cladding layer is detected as strength change of the light which could point in the core and change of the spectrum by detecting.

L83 ANSWER 20 OF 36 HCAPLUS COPYRIGHT ACS on STN

AN 2000:144497 HCAPLUS Full-text

ED Entered STN: 03 Mar 2000

TI **LED** lamp. [Machine Translation].

IN Kondo, Toshiyuki; Kawaguchi, Yoshimi; Nomura, Naoji; Aita, Shindou

PA Stanley Electric Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM H01L033-00

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000068562	A2	20000303	JP 1998-235610	19980821
	EP 982532	A3	20011114	EP 1999-116509	19990823
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
PRAI	JP 1998-235610	A	19980821		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2000068562	ICM	H01L033-00
EP 982532	ECLA	H01L033/00B2D; H01L033/00B6C3

AB [Machine Translation of Descriptors]. From the stress and the like for the **LED** tip/chip regarding the former **LED** lamp the resin case makes small-sized not to obtain, when cannot obtain sufficient luminous area, making the illuminant of the on vehicle light ingredient caused the brightness nonuniformity on the luminous aspect and saw and it had become something where prospering is inferior. By this invention, resin case 3 size being expanded by diameter D direction, makes abbreviation plate shaped resin case 3, as for the light emission aspect of this resin case 3 the plural aspects group makes the lens cutting aspect 3 A which can be brought together, **reflection** processing is done on back of the **same resin** case and 3 when by the fact that makes the **LED** lamp 1 which is made **reflecting** interface 3 B, lining up arranging the plural **LED** lamps in order to obtain the luminous aspect of surface light source condition even, in the former **LED** lamp causing the brightness nonuniformity on the luminous aspect, is due to this invention the resin With the enlargement to the radial direction of case 3 and **reflection** processing to the back, enlargement of luminous area and increase in illuminating angle are made possible together when increase of stress is not caused that much in **LED** tip/chip 2 and it is something which theme the decision is done.

DERWENT-ACC-NO: 2001-310101

DERWENT-WEEK: 200133

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TITLE: Surface mounting type photo-interrupter in printer - has
LED and photo-transistor mounted on circuit board and
sealed by epoxy resin, and has reflecting surfaces and
slits for passing light from LED to photo-transistor

PATENT-ASSIGNEE: CITIZEN DENSHI KK[CITL]

PRIORITY-DATA: 1998JP-0089598 (March 19, 1998)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 11274550 A	October 8, 1999	N/A	010	H01L 031/12

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-DATE
JP 11274550A	N/A	1998JP-0089598	March 19, 1998

INT-CL (IPC): H01L031/12

ABSTRACTED-PUB-NO: JP 11274550A

BASIC-ABSTRACT:

NOVELTY - The LED (3) and photo-transistor (4) are mounted on circuit board (21) and covered by epoxy resin (8). Light from LED is guided towards photo-transistor by slits (24a,24b) and reflecting surfaces (24c,24d). The body of interrupter (24) is molded from metal or plastic and has a predetermined gap (G).

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for manufacturing method of surface mounting type photo-transistor.

USE - In printer, floppy disc drive, facsimile.

ADVANTAGE - Since epoxy resin which has almost equal linear coefficient of expansion covers the LED and photo-transistor, high and reliable mutual fixing power in high and low temperature and humidity is obtained. Reliability of equipment is improved because slit and gap formation is done by press stamping of metal plate with high precision. Influence of LED and photo-transistor by mechanical stress and thermal stress is prevented.

DESCRIPTION OF DRAWING(S) - The figure illustrates the sectional view of surface mounting type photo-interrupter. (3) LED; (4) Photo-transistor; (8) Epoxy resin; (21) Circuit board; (24) Interrupter; (24a,24b) Slits; (24c,24d) Reflecting surfaces; (G) Gap.

CHOSEN-DRAWING: Dwg.1/16

TITLE-TERMS: SURFACE MOUNT TYPE PHOTO INTERRUPT PRINT LED PHOTO TRANSISTOR
MOUNT CIRCUIT BOARD SEAL EPOXY RESIN REFLECT SURFACE SLIT PASS
LIGHT LED PHOTO TRANSISTOR

DERWENT-CLASS: A85 L03 U12

CPI-CODES: A12-E11A; L04-E03; L04-E05;

EPI-CODES: U12-A02C2;

ENHANCED-POLYMER-INDEXING:

Polymer Index [1.1]

018 ; P0464*R D01 D22 D42 F47

Polymer Index [1.2]

L83 ANSWER 22 OF 36 HCAPLUS COPYRIGHT ACS on STN
 AN 1999:545557 HCAPLUS Full-text
 DN 131:177147
 ED Entered STN: 30 Aug 1999
 TI **Optical coupler and its production method**
 IN Hotodzuka, Koichi; Hashizume, Shoji
 PA NEC Corp., Japan; NEC Compound Semiconductor Devices Ltd.
 SO Jpn. Kokai Tokkyo Koho, 11 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM H01L031-12
 CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	JP 11233810	A2	19990827	JP 1998-30710	19980213
	JP 3523047	B2	20040426		
PRAI	JP 1998-30710		19980213		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
-----	---	-----
JP 11233810	ICM	H01L031-12

AB The invention relates to an optical coupler that comprises a lead-frame mounted LED and photodiode embedded in a transparent gel resin layer, followed by mold forming a **light reflective resin layer**, wherein the penetration of the **transparent gel resin** measured by JIS-K2220, is 45-65 for **relaxing the thermal stress between the gel resin layer and the light-reflective resin layer**.

ST optical coupler LED photodiode synthetic resin

IT Electroluminescent devices

L94 ANSWER 18 OF 21 HCAPLUS COPYRIGHT ACS on STN

AN 1999:388028 HCAPLUS Full-text

DN 131:37573

ED Entered STN: 23 Jun 1999

TI **Semiconductor LED packages**

IN Tabata, Takashi; Ikeda, Tadaaki; Hatanaka, Satoshi

PA Matsushita Electronics Corp., Japan

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11163409	A2	19990618	JP 1997-329975	19971201
PRAI JP 1997-329975		19971201		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 11163409	ICM	H01L033-00

AB The packages comprise: a **LED** chip; and an insulator substrate; a pair of **LED**-mounting electrodes formed on the top and bottom surface of the **substrate**; and a **transparent resin encapsulating** the **LED**; where the bottom segment of the electrode is equal to or longer than the top segment.

L105 ANSWER 2 OF 2 HCAPLUS COPYRIGHT ACS on STN

AN 1999:56918 HCAPLUS Full-text

DN 130:147513

ED Entered STN: 27 Jan 1999

TI **Polymer composition containing titania-coated inorganic filler and light-coupled semiconductor device sealed with it**

IN Yoshizumi, Akira

PA Toshiba Chemical Corp., Japan

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
PI JP 11017073	A2	19990122	JP 1997-180689	19970620
PRAI JP 1997-180689		19970620		

AB The composition showing light-**reflection** and light-shielding characteristics is composed of a polymer and an inorg. fillers containing TiO₂-coated ones. The semiconductor device comprises a **light-emitting** device and a light-accepting device which are connected via an lead electrode, buried with a **transparent** polymer, and sealed with the above composition. The white-colored composition shows low moisture absorption, low **thermal expansion**, and heat resistance to give light-coupled semiconductor devices with improved reliability.

IT Phenolic **resins**, uses

(epoxy; light-coupled semiconductor device sealed with polymeric composition containing titania-coated inorg. fillers)

IT Epoxy **resins**, uses

(phenolic; light-coupled semiconductor device sealed with polymeric composition containing titania-coated inorg. fillers)

PUB-NO: WO009724770A1
DOCUMENT-IDENTIFIER: WO 9724770 A1
TITLE: SURFACE MOUNT LED ALPHANUMERIC DISPLAY
PUBN-DATE: July 10, 1997

INVENTOR-INFORMATION:
NAME COUNTRY
LUMBARD, MARVIN N/A

ASSIGNEE-INFORMATION:
NAME COUNTRY
SIEMENS COMP INC US

APPL-NO: US09619790
APPL-DATE: December 17, 1996

PRIORITY-DATA: US57953895A (December 27, 1995)
INT-CL (IPC): H01L033/00, H01L025/16 , G09F009/33
EUR-CL (EPC): H01L025/16 ; H01L033/00

ABSTRACT:

<CHG DATE=19980116 STATUS=N>The heat tolerance of an LED alphanumeric display device (10) having a clear epoxy encapsulation (70) can be improved by matching the coefficient of thermal expansion (CTE) of the inner circuit board (120) to the high CTE of the epoxy. When heat is applied to fix the device to a circuit board, the components will expand at a nearly equal rate, avoiding cracking and failure.

L83 ANSWER 23 OF 36 HCAPLUS COPYRIGHT ACS on STN

AN 1998:747578 HCAPLUS Full-text

DN 130:45079

ED Entered STN: 25 Nov 1998

TI Semiconductor **LED**

IN Morita, Etsuo; Kawai, Koji

PA Sony Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM H01L033-00

ICS H01S003-18

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 76

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10308532	A2	19981117	JP 1997-115860	19970506
	US 6121636	A	20000919	US 1998-72177	19980505
PRAI	JP 1997-115860	A	19970506		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 10308532	ICM	H01L033-00
	ICS	H01S003-18

AB The **LED** comprises: a light-transmitting substrate with a **reflector** layer formed on the back surface; a Group III-V DH laminate having an inverted mesa profile with a **reflecting** coating on the facet(s); and the n and the p electrodes are formed in the **same** laminating region, where typically the substrate employs sapphire, and the DH structure comprises a GaInN-active/AlGaIn-cladding laminate. The **LED** package comprises: a lead-frame having a **reflecting** cup profile; an **epoxy** bonding; and an epoxy lens **encapsulation**.

IT **Epoxy resins, uses**

Group IIIA element pnictides
(semiconductor **LED** and packages)

L45 ANSWER 16 OF 23 JAPIO (C) JPO on STN

AN 1998-126000 JAPIO Full-text

TI OPTICAL SEMICONDUCTOR DEVICE MODULE

IN ICHIKAWA FUMIO; FUKUDA MITSUO

PA NIPPON TELEGR & TELEPH CORP <NTT>

PI JP 10126000 A 19980515 Heisei

AI JP 1996-275916 (JP08275916 Heisei) 19961018

PRAI JP 1996-27591619961018

SO PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1998

IC ICM H01S003-18

ICS G02B006-42; H01L031-0232; H01L033-00

AB PROBLEM TO BE SOLVED: To provide a semiconductor device module which is easily optically coupled, easily fixed, shortened in assembly time, lessened in manufacturing cost, and excellent in stability. SOLUTION: In an optical semiconductor device module, a semiconductor optical element and a part of a waveguide optically connected to the semiconductor optical element are covered with a first resin 108, which is not thermally deformed to cause damage to the semiconductor optical element and transparent to light rays of certain wavelengths which are optically detected by or emitted from the semiconductor optical element, and the outer surface of the first resin 108 is covered with a second resin 109 which is opaque to light rays present in an environment where the semiconductor optical element is employed and moisture-resistant, that is, the semiconductor optical element is of double resin-sealed structure. By this setup, an optical semiconductor device module of excellent quality is obtained, wherein optical coupling is easily made, members are easily fixed, an assembly time is shortened, an optical element is protected against damage caused by thermal instability and deformation, light rays can be emitted outside an introduced from outside enough, noises caused by leakage light rays (e.g. sunlight) from the outside are prevented, and an enough S/N ratio is obtained. Therefore, an optical semiconductor device module excellent in stability can be delivered at a low cost. COPYRIGHT: (C)1998,JPO

L83 ANSWER 26 OF 36 HCAPLUS COPYRIGHT ACS on STN

AN 1997:496198 HCAPLUS Full-text

DN 127:122743

ED Entered STN: 06 Aug 1997

TI **Transparent electrically conductive films** with excellent gas barrier properties and interlayer adhesion

IN Igarashi, Satoshi; Tamura, Yuji; Fujishima, Hiroyuki; Kane, Tatsuichiro

PA Teijin Ltd., Japan

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09174746	A2	19970708	JP 1995-336662	19951225

PRAI JP 1995-336662

19951225

AB Title films, useful for **transparent electrode substrates** of liquid-crystal displays, consist of transparent elec. conductive layers on **one** side of laminated films comprising solvent-resistant organic resin layers on both sides of plastic cast films (thickness 70-200 μm) with gas-barrier intermediate layers of metal oxides. Layers made of polymers manufactured by hydrolysis of $\text{R}_1\text{R}_2\text{N}(\text{CH}_2)_y\text{Si}(\text{R}_3)_w(\text{OR}_4)_z$ [$\text{R}_1 = \text{H, Ph, C1-4 alkyl}$, $(\text{CH}_2)_x\text{NR}_5\text{R}_6$; $\text{R}_2, \text{R}_5, \text{R}_6 = \text{H, C1-4 alkyl}$, $\text{R}_3, \text{R}_4 = \text{C1-4 alkyl}$; $y = 1-12$; $w = 0$ or $1-2$; $z = 1-3$; $w + z = 3$; $x = 1-12$] and poly(vinyl alc.)-based resin layers having polyurethane undercoating layers are formed on the outside of the metal oxide layers. Thus, on the belt side of the bisphenol A-based polycarbonate cast film, a phenoxy resin anchor-coating layers [formed from Pheno Tohoto YP 50 (I) 20, MEK 50, 2-ethoxyethyl acetate (II) 30, and Takenate A 3 (III) 20 parts], a gas-barrier layer of PVA 117, and **a solvent-resistant phenoxy resin layer** (formed from I 40, MEK 40, II 20, and III 40 parts) were formed. Further the film was electrodeposited with SiO_x on the air side, coated with a composition [comprising 1.4 part hydrolyzates of $(\text{C}_2\text{H}_5\text{O})_2\text{SiMeC}_3\text{H}_6\text{NHC}_2\text{H}_4\text{NH}_2$, 48.6 parts butanol, and 50 parts isopropanol] **on the SiO_x layer**, and further coated with **solvent-resistant phenoxy resin (above the same)** to obtain a laminated film showing light transmittance 88% at 550 nm, and 82% at 400 nm, O permeability at 30° 0.05 and 3 $\text{cm}^3/\text{m}^2\text{-day-atm}$ at 50% relative humidity (RH) and 90% RH, resp., steam permeability 2 $\text{g}/\text{m}^2\text{-day-atm}$ at 40° and 90% RH, good interlayer adhesion, and good solvent resistance. Then, ITO layers were formed on the air side of the film to give a transparent elec. conductive film showing surface resistivity 40 $\Omega/\text{box.}$, haze 0.7%, surface roughness 5.7 nm, and no peeling after at 69° and 90% RH for 25 h.

L83 ANSWER 24 OF 36 HCAPLUS COPYRIGHT ACS on STN

AN 1998:427711 HCAPLUS Full-text

DN 129:88086

ED Entered STN: 11 Jul 1998

TI Optical disk and method for its manufacture

IN Kondo, Tetsuya

PA Victor Company of Japan, Ltd., Japan

SO U.S., 16 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM G11B007-24

ICS G11B007-26

NCL 430321000

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	US 5770348	A	19980623	US 1996-622392	19960327
	JP 3079963	B2	20000821	JP 1995-201446	19950714
PRAI	JP 1995-97813	A	19950329		
	JP 1995-201446	A	19950714		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
-----	-----	-----
US 5770348	ICM	G11B007-24
	ICS	G11B007-26
	NCL	430321000

AB This invention provides an optical disk whose recorded information cannot be easily copied to other recording media, with practically no degradation of strength. The optical disk of this invention has a ring-shaped signal layer made of a radiation-curable **resin** on a **transparent substrate**, a **reflective** layer formed on this signal layer, and a protective layer formed on this **reflective** layer, moreover, the above-mentioned signal layer has a **peel** strength against the above mentioned **transparent substrate** in the range of about 20/100 to about 80/100 according to the JIS-K5400 test method, and if the outer and inner diams. of the mentioned signal layer are represented by Os and Is resp., the outer and inner diams. of the mentioned **reflective** layer are represented by Or and Ir resp., and the outer and inner diams. of the mentioned protective layer are represented by Op and Ip resp., these diams. satisfying the relationships $Os < Or < Op$ and $Ip < Ir < Is$.

L83 ANSWER 28 OF 36 HCAPLUS COPYRIGHT ACS on STN

AN 1996:396025 HCAPLUS Full-text

DN 125:45254

ED Entered STN: 10 Jul 1996

TI Optical recording media with high sensitivity in recording and erasing

IN Suzuki, Yuki

PA Mitsubishi Chemical Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B41M005-26

ICS G11B007-24

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08072405	A2	19960319	JP 1994-211268	19940905
PRAI JP 1994-211268		19940905		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 08072405	ICM	B41M005-26
	ICS	G11B007-24

AB In the title optical media comprising a **pregrooved substrate** laminated successively with a dielec. substance layer, a **thermoplastic resin-based recording layer** contg an organic dye, and a **reflection layer**, the **resin** contains a thermoplastic resin comprising soft segments in which the C:C bonds are saturated by hydrogenation and hard segments and another **one** comprising soft segments in which the C:C bonds are not hydrogenated and hard segments and the **2 resins are compatible with each other**. The media show high sensitivity in recording and erasing and improved erasing rate and are capable of erasing by using single beam. Thus, a pregrooved polycarbonate disk was sputtered with Ta oxide, coated with a composition containing a mixture of styrene-hydrogenated butadiene-styrene block copolymer and styrene-butadiene-styrene block copolymer, Ni-indoaniline dye, and a radical-generating agent, and irradiated with UV to give an optical disk.

L45 ANSWER 20 OF 23 JAPIO (C) JPO on STN

AN 1994-216412 JAPIO Full-text

TI MANUFACTURE OF LED

IN ITOU TAKEO; YOSHIDA KENICHI; HIGUCHI SHIGERU

PA STANLEY ELECTRIC CO LTD

PI JP 06216412 A 19940805 Heisei

AI JP 1993-23512 (JP05023512 Heisei) 19930120

PRAI JP 1993-2351219930120

SO PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1994

IC ICM H01L033-00

AB PURPOSE: To provide a manufacturing method for an LED, in which a base section is not thermally deformed by simple constitution. CONSTITUTION: In an LED 10 having two lead frames 11, 12, a LED chip 13 mounted on the upper end face of one of the lead frames, a base section 14 molded so as to cover the lower regions of each lead frame and a lens section 15 formed by resin mold so as to surround the upper end faces of each lead frame and the LED chip in the upper section of the base section, the lens section is molded from a transparent resin first, and the base section is insert-molded by a resin having heat resistance higher than the transparent resin to the lens section.

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L106 ANSWER 2 OF 5 WPIX COPYRIGHT THE THOMSON CORP on STN

AN 1992-243518 [30] DNN N1992-185801

TI Rear window stop lamp for motor vehicles - has **resin** moulded body with one cavity with curved **reflecting** surface attached to interior side of rear window glass sheet with **LED** chip in cavity at focal point of curved surface.

IN MORIKAWA, M; SASAJIMA, T

PA (NIPG) NIPPON SHEET GLASS CO LTD

PI	EP 495685	A1 19920722 (199230)*	EN 8	B60Q001-30
	AU 9210516	A 19920723 (199237)		B60Q001-44
	CA 2059705	A 19920719 (199241)		B60Q001-44
	US 5241457	A 19930831 (199336)	7	B60Q001-44
	AU 653574	B 19941006 (199441)		B60Q001-44
	EP 495685	B1 19950503 (199522)	EN 10	B60Q001-30
PRAI	JP 1991-43731U	19910515; JP 1991-5119		19910118

AB EP 495685 A UPAB: 20020128

The stop light comprises a **resin**-moulded body (5) directly mounted on an interior side of a rear window glass sheet (2) of a motor vehicle. The body has at least one cavity (6) in it with a curved **reflecting** surface (7). An **LED** chip (10) is in the cavity and positioned at a focal point of the curved **reflecting** surface.

A **transparent resin**-moulded body (9) surrounds the **LED** chip. A light distribution lens plate (12) covers an opening in the cavity (6) for directing rearwardly a light beam emitted from the **LED** chip and **reflected** by the curved **reflected** surface. The light distribution lens plate comprises a Fresnel lens (58) with a number of segments.

ADVANTAGE - Provides a safer, more attractive and more efficient rear window stop light.

ABEQ US 5241457 A UPAB: 19931122

A **resin**-moulded body is attached to the interior side of a rear window glass sheet. The body has at least one cavity having a curved **reflecting** surface. An **LED** chip is disposed in the cavity at a focal point of the curved **reflecting** surface. A **transparent resin**-moulded body surrounds the **LED** chip. A light distribution lens plate covers an opening of the cavity for directing rearwardly a light beam emitted from the **LED** chip and **reflected** by the curved **reflecting** surface. The light distribution lens plate comprises a Fresnel lens.

A printed electric wire board is embedded in the **resin**-moulded body for energising **LED** units. The printed electric wire board is made of a material having a coefficient of **thermal expansion** which is closer to that of the rear window glass sheet than to that of the **resin**-moulded body. A **thermal expansion** inhibiting plate, also embedded in the body, is made of a material having a coefficient of **thermal expansion** which is closer to that of the rear window glass sheet than to that of the **resin**-moulded body.

USE - Rear window stop lamp for a motor vehicle, which is energisable when the brake of the vehicle is applied.

ABEQ EP 495685 B UPAB: 19950609

A rear window stop lamp for a motor vehicle, which is energisable when a brake of the motor vehicle is applied, comprising:

a **resin**-moulded body (53) adapted to be attached to an interior side of a rear window glass sheet (52) of the motor vehicle, said **resin**-moulded body (53) having at least one cavity (54) defined therein and having a curved **reflecting** surface (56a);

an **LED** chip (57) disposed in said cavity (54) and positioned substantially at a focal point of said curved **reflecting** surface (56a); and

a **transparent resin**-moulded body (56) surrounding said **LED** chip (57); characterised by a light distribution lens plate (58) covering an opening of said cavity (54) for directing rearwardly a light beam emitted from said **LED** chip (57) and **reflected** by said curved **reflecting** surface (56a);

a printed electric wire board (59) embedded in said **resin**-moulded body (53) for energizing said **LED** chip (57); and a **thermal expansion** inhibiting plate (60) embedded in said **resin**-moulded body (53) and having a coefficient of **thermal expansion** which is closer to that of a said rear window glass sheet (52) than to that of said **resin**-moulded body (53);

said printed electric wire board (59) and said **thermal expansion** inhibiting plate (60) each comprising a plurality of segments (59a, 60a).

L94 ANSWER 20 OF 21 HCAPLUS COPYRIGHT ACS on STN

AN 1993:614085 HCAPLUS Full-text

DN 119:214085

ED Entered STN: 13 Nov 1993

TI **Display device with LEDs having a reduction of thermal expansion coefficients among the associated components**

IN Abe, Munezo

PA Sharp Corp., Japan

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5177593	A	19930105	US 1990-576653	19900904
PRAI	JP 1989-U103839		19890904		

AB A display device with LEDs includes an interconnection frame in which an elec. lead interconnection is formed by conductive metal plating on a surface including a main surface of a resin substrate capable of receiving a plating process. LEDs are bonded at the predetd. positions on the main surface of this interconnection frame so that they are connected to the elec. lead interconnection. A reflection case having openings with their inner peripheral surfaces serving as reflection surfaces surrounding the LEDs is affixed to the main surface of the interconnection frame at a position corresponding to the LED arrangement. In the openings of the reflection case, the LEDs are covered with light-transmissive resin members. Because the interconnection frame for the lead is formed of resin as well as the reflection case and provided with metal plating interconnection, thermal stresses are not produced due to difference of thermal expansion coefficient between the interconnection frame and the reflection case.

IT Optical imaging devices
(electrooptical, LED, with reduced thermal expansion among components)

L45 ANSWER 21 OF 23 JAPIO (C) JPO on STN

AN 1990-222904 JAPIO Full-text

TI **PRODUCTION OF OPTICAL RETROREFLECTOR**

IN IZUMITANI TEIZO

PA LENS RAITO:KK

PI JP 02222904 A 19900905 Heisei

AI JP 1988-67722 (JP63067722 Showa) 19880322

PRAI JP 1988-6772219880322

SO PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1990

IC ICM G02B005-128

AB PURPOSE: To avert the peel and separation of the reflector and transparent focuses and to obviate the generation of crack, peel and separation in a worked point even if the reflector is subjected to severe bending by intimately mixing the strong adhesive components of the transparent solid fine particles melted in the transparent particle film in contact with the reflector.

CONSTITUTION: A proper ratio of the 1st transparent solid fine particles 2, 2' of an organic synthetic resin are incorporated into a transparent coating compound 1 to the organic synthetic resin and are put into the evenly and densely dispersed state. The transparent coating compound is then applied to a thin film thickness on the surface of a material 3 to be coated and the transparent fine particles 4, 4' of inorg. microglass are sprayed on the pupils thereof to form the optical retroreflecting layer, atop which the transparent particle film 6 of the fluid organic synthetic resin incorporated with the 2nd transparent solid fine particles 5, 5' is applied. This film is heated and dried. A reflector 7, a reflectivity applying material 8, an organic synthetic resin adhesive film 9 are laminated atop the transparent focus film 6. The adhesion of the front surface of the transparent particle film 6 and the rear surface of the reflector 7 is additionally strengthened. The peel and separation of both are obviated even after the long-term use. In addition, the generation of the crack, peel and separation at the bent point is obviated.

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L36 ANSWER 13 OF 18 WPIX COPYRIGHT THE THOMSON CORP on STN

AN 1990-315632 [42] WPIX Full-text

DNN N1990-241909 DNC C1990-136425

TI Production of light recurrent reflecting substance - obtd. by mixing organic **resin transparent** solid particles and **resin** coating, applying to base, adding **transparent** micro globes, etc..

DC A89 G02 P81

PA (LENS-N) YG LENS LIGHT

CYC 1

PI JP 02222904 A 19900905 (199042)*

ADT JP 02222904 A JP 1988-67722 19880322

PRAI JP 1988-67722 19880322

IC G02B005-12

AB JP 02222904 A UPAB: 19930928

In the production method (a) organic synthetic **resin transparent** solid particles has specific gravity similar to that of a liquid or pasted organic synthetic **resin transparent** coating and has **thermal** melting, strong adhesion, **expansion** flexure, and abrasion resistance. The particles are mixed into the coating and are stirred. (b) The coating is applied on the material to be coated (3). (c) **Transparent** microglobes (inorganic glass) are scattered on the undried and fluidised coating film. Or the lower hemispheres of the microglobes are buried in the coating film. The film is heated for drying, and the solid particles are simultaneously heated to form a liquid or paste. The particles are aligned in series. Drying closely anchors the particles to the coating. (d) Second **transparent** solid particles composed of the **same material** as that of the coating are contained in a fluidised organic synthetic **resin transparent** collective film. The collective film is applied on the microglobes. The film is heated for drying and the solid particles are simultaneously heated to form a liquid or pasted shape. (e) A **reflector** such as an aluminium evaporation film is laminated on the collective film. An organic synthetic **resin** adhesive film is laminated on the **reflector**. The adhesive film is heated and dried to positively anchor the **reflector** to a reflection-providing substance. Heating simultaneously melts the adhesive component of the second **transparent** solid particles to firmly anchor the collective film to the **reflector**.

USE/ADVANTAGE - The light recurrent reflecting substance is used for bicycles, motorcycles, fenders, hoses by road, store shutters to prevent traffic accidents, having good durability. @ 0/2coat in

FS CPI GMPI

FA AB

DERWENT-ACC-NO: 1988-360919

DERWENT-WEEK: 198850

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TITLE: Electroluminescent instrument panel member - uses glass
fibre reinforced sheets with matching thermal expansion
coefficients to house lamp elements

INVENTOR: BRATTAIN, D H; HANDY, C R ; SOUSA, D L

PATENT-ASSIGNEE: LOCTITE LUMINESCENT[LOCT]

PRIORITY-DATA: 1986US-0924580 (October 29, 1986)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 4788629 A	November 29, 1988	N/A	004	N/A

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-DATE
US 4788629A	N/A	1986US-0924580	October 29, 1986

INT-CL (IPC): F21V009/16

ABSTRACTED-PUB-NO: US 4788629A

BASIC-ABSTRACT:

Instrument panel member (10) has one or more electroluminescent lamp elements (13) positioned between two multiple-ply, fibre-glass reinforced, plastic sheets (11,12) which have been pre-impregnated with a bonding resin. The lamp elements are positioned in one or more recesses in the first sheet (11) which has a preselected thickness greater than that of the second sheet (12). The sheets and one or more lamps are bonded together by curing at 210-275 deg.F at a pressure of 50-135 psi.

USE/ADVANTAGE - Instrument panel member is for use in instrument panels in aircraft cockpits, etc. It is able to use electroluminescent lamps rather than bulky incandescent lights and is designed to maintain its structural integrity although being of reduced thickness and wt. It is possible to achieve this because the coefft. of expansion of the fibre-glass sheets used is close to that of the lamp elements and the aluminium panel to which the panel member is attached.

CHOSEN-DRAWING: Dwg.1/1

TITLE-TERMS: ELECTROLUMINESCENT INSTRUMENT PANEL MEMBER GLASS FIBRE REINFORCED
SHEET MATCH THERMAL EXPAND COEFFICIENT HOUSE LAMP ELEMENT

DERWENT-CLASS: A85 Q71 U14 W06

CPI-CODES: A11-C01; A11-C02; A12-L03; A12-S08B; A12-S08D3; A12-T04A;

EPI-CODES: U14-J; W06-B01B;

UNLINKED-DERWENT-REGISTRY-NUMBERS: 5214U

POLYMER-MULTIPUNCH-CODES-AND-KEY-SERIALS:

Key Serials: 0011 0231 3181 2020 2198 2214 2491 2493 2522 2595 2646 2654 2666
3258 3278 3298 2829

Multipunch Codes: 014 04- 143 146 231 308 309 359 42& 441 46& 473 50& 502 516
523 55& 57& 581 596 604 607 623 627 651 672 723

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1988-159718

L106 ANSWER 5 OF 5 JAPIO (C) JPO on STN

AN 1988-240082 JAPIO Full-text

TI PHOTO-INTERRUPTER

IN AKASE KAZUTOYO

PA NEC CORP

PI JP 63240082 A 19881005 Showa

AI JP 1987-75307 (JP62075307 Showa) 19870327

PRAI JP 1987-75307 19870327

SO PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1988

IC ICM H01L031-12

AB PURPOSE: To improve the efficiency of optical transmission by forming a **reflecting** curved surface for **reflecting** beams emitted from a **light-emitting device** to a **transparent resin** body and focussing beams to a photodetector and forming a non-translucent **resin** body coating the **transparent resin** body by a white **resin**.

CONSTITUTION: A pair of a **light-emitting** device 3 and a photodetector 4 are placed on each of inner leads 2 connected to outer leads 1, and held so as to be opposed at a regular interval on the same axis. A **transparent resin** body 6 is shaped by injection-molding a translucent epoxy **resin** so as to have a **reflecting** curved surface 5 **reflecting** beams emitted from the **light-emitting** device 3 and focussing beams to the photodetector 4 and unify the **light-emitting** device 3 and the photodetector 4. **The whole surface of the transparent resin body 6 is coated and molded and sealed with a non-translucent resin body 7 of a white epoxy resin having a thermal expansion coefficient approximately the same as the transparent resin body 6 and containing titanium oxide.** The central sections of the **transparent resin** body 6 and the non-translucent **resin** body 7 are cut to form a shield inserting groove 8 while the **transparent resin** bodies 6 into which the **light-emitting** device 3 and the photodetector 4 are sealed respectively are separated mutually. Accordingly, a photo-interrupter having the high efficiency of optical transmission is acquired.

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PAT-NO: JP362139308A
DOCUMENT-IDENTIFIER: JP 62139308 A
TITLE: IGNITION COIL FOR INTERNAL COMBUSTION ENGINE
PUBN-DATE: June 23, 1987

INVENTOR-INFORMATION:

NAME
KUSAKA, YOSHIMI
YOSHINARI, TAKASHI
WATANABE, HIROSHI

ASSIGNEE-INFORMATION:

NAME	COUNTRY
HITACHI LTD	N/A

APPL-NO: JP60278976

APPL-DATE: December 13, 1985

INT-CL (IPC): H01F031/00, F02P003/04 , F02P007/03 , F02P015/00 , F02P015/00

US-CL-CURRENT: 336/189

ABSTRACT:

PURPOSE: To prevent the generation of cracks on diodes as well as to improve the insulating property and the durability of the titled ignition coil by a method wherein a member material having the linear expansion coefficient equal or approximate to that of sealed glass is provided on the outer circumference of a high pressure diode.

CONSTITUTION: A member 13, formed by lap winding a glass cloth tube, is provided between the outer circumferential surface of high pressure diodes D<SB>1</SB>∼D<SB>4</SB> and diode housing parts 9a∼9d. Also, after the diodes D<SB>1</SB>∼D<SB>4</SB>, the interposing member 13, primary coils 2 and 3, and a secondary coil 6 have been incorporated into a coil case 8 and a diode case 9, thermosetting epoxy resin 10 is injected, vacuum-impregnated, hardened by heating, and the coils 2, 3 and 6 and the high pressure diodes D<SB>1</SB>∼D<SB>4</SB> are insulated. The end part of the primary coil led out from the coil case 8 is connected to a terminal 16, iron cores 7a and 7b are attached, the outside of an iron core 7 and the case 8 is coated with thermoplastic synthetic resin 17, and the ignition coil is completed. According to this constitution, the ignition coil of high reliability can be obtained.

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L45 ANSWER 22 OF 23 JAPIO (C) JPO on STN

AN 1985-053939 JAPIO Full-text

TI DIMMING PLASTIC LENS

IN KOJIMA TAKENOBU; MOGAMI TAKAO

PA SEIKO EPSON CORP

PI JP 60053939 A 19850328 Showa

AI JP 1983-162980 (JP58162980 Showa) 19830905

PRAI JP 1983-162980 19830905

SO PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1985

IC ICM G02F001-17

ICS G02B001-04; G02B001-10; G02B005-23;
G02C007-04

AB PURPOSE: To provide superior scratch resistance, chemical resistance and hot water resistance, to improve the transparency and dimming effect, and to reduce the surface reflection by forming a single-layered or multilayered antireflection film on a film of a coating material prepared by adding a silver halide to a specified composition. CONSTITUTION: A single-layered or multilayered antireflection film 12, 13, 14 is formed on a dimming plastic lens coated with a coating material prepared by adding a silver halide such as silver bromide to a composition consisting essentially of the hydrolyzate of a compound represented by the formula (where R<SP>1</SP> is an organic group containing at least one among vinyl, amino, imino, **epoxy**, methacryloxy, phenyl and SH, R<SP>2</SP> is H, 1~6C hydrocarbon or vinyl, R<SP>3</SP> is 1~5C hydrocarbon, alkoxyalkyl or 1~4C acyl, a is 0, 1 or 2, b is 0 or 1, and a+b<=2), an **epoxy** compound such as epoxidized polyethylene glycol, and a curing catalyst such as ZnCl<SB>2</SB>. Since the resulting film 11 of the coating material has high hardness, it is not necessary to form a hard coat on the antireflection film 12, 13, 14, and the film 12, 13, 14 is required only to have antireflection function. **Accordingly, the thickness can be reduced, and the shock resistance is not deteriorated.** A dimming plastic lens having superior transparency and a significant dimming effect can be obtd. The surface reflection of the lens can be reduced, and the lens has high scratch resistance, light resistance, hot water resistance and shock resistance which are required in practical use. COPYRIGHT:
(C)1985,JPO&Japio

L83 ANSWER 35 OF 36 HCAPLUS COPYRIGHT ACS on STN

AN 1964:87488 HCAPLUS Full-text

DN 60:87488

OREF 60:15294b-c

ED Entered STN: 22 Apr 2001

TI **Electroluminescent device**

IN Klasens, Hendrik A.; Joormann, Hendrik J. M.

PA N. V. Philips' Gloeilampenfabrieken

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	NL 106418	19631115	NL	19560921
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AB An **electroluminescent device** contains a layer of a mixture of electroluminescent material with a luminescent material which is activated by the radiation of the former. The mixture, **dispersed in a synthetic resin, is sandwiched between a transparent electrode and a reflecting electrode, covered with a dispersion of TiO₂ in the same resin.** Thus, Cu- and Al-activated blue-luminescent ZnS is used, mixed with Rhodamine B, and dispersed in a solution of urea-formaldehyde resin in BuOH. This dispersion is sprayed on the conductive side of a glass plate which is covered with a transparent layer of Sn oxide. After heating at 155° the 90-μ thick coating of electroluminescent material is coated with a dispersion of TiO₂ (rutile) mixed with Rhodamine B in the **same solution of resin.** After heating, a layer 30 μ thick is formed. Finally a Ag layer 5 μ thick is applied. With 600 v. a.c. the device produces red electroluminescence.